

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A seabed anchor in the form of a caisson having a longitudinal axis and comprising a caisson side wall, said side wall surrounding an interior volume and having top and bottom ends and, a top wall substantially closing the interior volume at its upper end, while being provided with a fluid connection to the interior volume, to cause  
5 fluid to be withdrawn away from an upper part of said interior volume during embedment whereby suction is applied to cause embedment of the anchor in seabed soil, a bottom edge of said side wall defining an open caisson bottom which permits the anchor to be embedded in the seabed soil in a direction generally downwardly along said longitudinal axis by penetration of said side wall edge into the soil, wherein a lower portion of said interior volume is substantially  
10 free of obstruction, and wherein means for retaining seabed soil are provided in an upper portion of said interior volume, said means for retaining seabed soil being adapted to displace, receive and retain a quantity of the seabed soil, a weight of the seabed soil retained by the means for retaining seabed soil adding to the force required to pull the embedded anchor out of the seabed when the anchor has been emplaced.

2. Cancelled

3. (Previously Presented) An anchor as claimed in claim 1, characterized in that said means for retaining seabed soil comprises at least one container having an opening arranged to admit seabed soil during embedment of the anchor in the seabed.

4. (Previously Presented) An anchor as claimed in claim 1, wherein said means for retaining seabed soil has a downwardly reducing external cross-section to minimize resistance to upward movement of seabed soil past the means for retaining seabed soil during embedment of the anchor.

5. (Previously Presented) An anchor as claimed in claim 4, wherein said means for retaining seabed soil comprises at least one conical hopper, having an apex oriented to penetrate the soil during embedment.

6. (Previously Presented) An anchor as claimed in claim 1, characterized in that said means for retaining seabed soil is located entirely within the interior volume of the caisson.

7. Cancelled.

8. (Currently Amended) A method of embedding a seabed anchor in a seabed composed of soil, the method comprising the steps of:

- (a) providing a seabed anchor having a caisson side wall surrounding an interior volume, a top wall substantially closing the interior volume at its upper end, ~~while being~~  
5 ~~provided with~~ and a fluid connection [[to]] disposed on the top wall and communicating with the  
interior volume, and a pump connected to the fluid connection to cause fluid to be withdrawn  
away from an upper part of said interior volume during embedment, said seabed anchor having  
an open caisson bottom permitting the anchor to be imbedded in the seabed by contact of a

bottom edge of said side wall, and said seabed anchor having means for retaining seabed soil disposed in said interior volume;

(b) deploying the anchor onto the seabed with a longitudinal axis of the anchor aligned substantially in a predetermined direction such that the lower edge of the caisson side  
5 wall contacts the seabed soil;

(c) applying forces to the anchor directed generally downwardly along the longitudinal axis of the anchor such as to force the anchor into the seabed soil such that the side wall surrounds a quantity of seabed soil, continuing eventually to displace seabed soil into the means for retaining seabed soil retaining means of the anchor;

10 wherein the anchor is embedded in the seabed substantially in said predetermined direction and the weight of seabed soil retained in the means for retaining seabed soil retaining means adds to the force required to pull the embedded anchor out of the seabed soil; and

[[a]] wherein in step (c) said applied force is generated by applying suction to the interior volume of the anchor.

9. Cancelled

10. (Previously Presented) A method as claimed in claim 8, wherein said predetermined direction is substantially vertical.

11. (Previously Presented) A method as claimed in claim 8, wherein said predetermined direction is partly vertical and partly horizontally directed in a selected bearing

such as to embed the anchor into the seabed substantially in a predetermined non-vertical direction that optimizes resistance of the embedded anchor to withdrawal by non-vertical loads.

12-14. Cancelled.

15. (Previously Presented) A gravity base comprising a plurality of seabed anchors, said gravity base comprising:

a plurality of caissons, each caisson including:

(i) a sidewall surrounding an interior volume, said sidewall having a bottom edge defining an open caisson bottom that permits the caisson to be embedded in seabed soil, a top wall substantially closing the interior volume at its upper end, a fluid connection located on the top wall and communicating with the interior volume to allow fluid to be withdrawn from an upper part of the interior volume during embedment;

(ii) means for retaining seabed soil positioned in an upper portion of said interior volume, said means for retaining seabed soil being adapted to receive seabed soil during emplacement and to retain a quantity of seabed soil after said caisson has been placed, wherein suction is applied to cause embedment of the seabed anchor, and wherein a weight of the seabed soil retained by the means for retaining seabed soil adds to a force required to pull the embedded anchor out of the seabed.

16. (Previously Presented) A method of embedding a gravity base comprising a plurality of seabed anchors, said method comprising the steps of:

providing the plurality of seabed anchors, each of said seabed anchors comprising:

a plurality of caissons, each caisson including:

- 5 (i) a sidewall surrounding an interior volume, said sidewall having a bottom edge defining an open caisson bottom that permits the caisson to be embedded in seabed soil, a top wall substantially closing the interior volume at its upper end, a fluid connection located on the top wall and communicating with the interior volume to allow fluid to be withdrawn from an upper part of the interior volume during embedment;
- 10 (ii) means for retaining seabed soil positioned in an upper portion of said interior volume, said means for retaining seabed soil being adapted to receive seabed soil during emplacement and to retain a quantity of seabed soil after said caisson has been placed, and wherein a weight of the seabed soil retained by the means for retaining seabed soil adds to a force required to pull the embedded anchor out of the seabed;
- 15 deploying the plurality of anchors onto the seabed such that the bottom edges of the caisson sidewalls contact the seabed soil;
- applying forces including suction forces to the anchors directed generally downward along longitudinal axis of the anchors to force the anchors into the seabed soil such that the sidewalls surround a quantity of seabed soil;
- displacing seabed soil into the means for retaining seabed soil in each of the anchors,
- 20 wherein the seabed soil rests on upper surfaces of the means for retaining seabed soil; and

increasing respective weights of the anchors by the seabed soil retained in the means for retaining seabed soil such that additional force is required to pull the anchors out of the seabed soil.

17. (New) An anchor as claimed in claim 1, wherein:

said fluid connection is disposed on the top wall and communicates with the interior volume, and a pump connected to the fluid connection thereby facilitating the fluid to be withdrawn away from the interior volume.